

## **“Carbon Auction Raises \$331.8M”**

*Environmental Leader*, August 22, 2014

California raised \$331.8 million at its latest carbon auction, held Aug. 18.

The state’s eighth cap-and-trade auction sold all 22.5 million allowances to release carbon emissions this year, with companies paying \$11.50 a ton for the 2014 carbon credits.

The state also sold an additional 6.5 million permits that can’t be used until 2017 of the 9.3 million offered for \$11.34 a ton.

The carbon price at the Aug. 18 auction was the same as the state’s seventh auction, held in May, and slightly higher than the previous two auctions in February and November, each of which sold allowances for \$11.48 each.

Read more: <http://www.environmentalleader.com/2014/08/22/carbon-auction-raises-331-8m/>

## **“The plastic of the future could be made from spinach stems and rice hulls”**

By Michael Silverberg, *Quartz*, August 25, 2014

The Graduate was right. In the almost half century since Benjamin Braddock was counseled that plastics were the future, the world’s consumption of plastic—in bottles, bags, packaging, pipes, computer parts, and countless other applications—has skyrocketed. Around 300 million tons (270 million tonnes) of plastic are produced worldwide (paywall) every year. The US Environmental Protection Agency estimated that in 2012 alone, 32 million tons of plastic entered the US municipal solid waste stream, making up almost 13% of the total. Plastics usually are manufactured from petrochemicals like oil, and they leach dangerous substances as they break down in landfills or the ocean.

For all those reasons, researchers have long been looking for ways to produce similarly performing materials from renewable sources. The current bioplastic offerings generally are an improvement over their petroleum-based counterparts, but they’re expensive and energy-intensive to make and use crops like corn that could otherwise feed people.

Now a team of Italian researchers has developed a new method: turning the waste materials of industrial agriculture into renewable plastic.

It works when cocoa pod husks, rice hulls, or parsley and spinach stems are bathed in a solution of trifluoroacetic acid (TFA) to extract their cellulose, a strong biopolymer with a range of properties, from rigid to soft and stretchy. The resulting materials can be substituted for some conventional plastics, according to Ilker Bayer and his team at the Italian Institute of Technology, whose study appears this week in *Macromolecules*, published by the American Chemical Society. The process as the study's authors describe it is faster and less expensive than standard methods for producing bioplastics. And as a bonus, it would put some of the world's agricultural waste—as much as 24 million tons per year in Europe—to good use.

Read more: <http://qz.com/254103/the-plastic-of-the-future-could-be-made-from-spinach-stems-and-rice-hulls/>

### **“First ionic liquid made from plant waste”**

By James Urquhart, *Chemistry World*, August 27, 2014

Ionic liquids – salts that are liquid at room temperature – could potentially be made more cheaply and greenly by recycling by-products from biofuel production processes, according to US researchers. These ionic liquids derived from biofuel waste could then actually be turned to extracting sugars from biomass to be made into fuels.

One of the biggest challenges in breaking down biomass into useful chemicals suitable for making biofuels is finding ways to selectively depolymerise lignocellulosic biomass into its monomers: glucose, xylose and lignin. Imidazolium-based ionic liquids have previously been shown to be highly selective and efficient for this process, compared with thermochemical methods. However, use of these petroleum-based ionic liquids has been held back due to their high cost.

Now, Seema Singh and colleagues at the Joint BioEnergy Institute and other US institutions have developed a closed-loop system that could potentially reduce the cost and environmental impact of making ionic liquids suitable for biomass processing. 'Until now ionic liquid cations have been petroleum based,' says Singh. 'Using by-product from biofuel production to convert it into ionic liquids closes the loop and make the process sustainable, non-toxic and much cheaper than petroleum-based ionic liquids.'

The researchers made their ionic liquids using furfural, vanillin and p-anisaldehyde, which are aromatic aldehydes derived from lignin and cellulose. These were each treated with diethylamine and sodium triacetoxyborohydride, which causes reductive amination and the synthesis of tertiary amine-based ionic liquids. They then used these ionic liquids to pre-treat lignocellulosic biomass from switchgrass.

Read more: <http://www.rsc.org/chemistryworld/2014/08/first-ionic-liquid-made-plant-biofuel-waste>

## **“Progress on a Powerful New Way to Generate Electricity”**

By Kevin Bullis, *MIT Technology Review*, August 28, 2014

**A powerful new way to generate electricity could eventually make electric cars and electronic gadgets run longer.**

About four years ago, researchers in Michael Strano’s chemical engineering lab at MIT coated a short piece of yarn made of carbon nanotubes with TNT and lit one end with a laser. It sparkled and burned like a fuse, demonstrating a new way to generate electricity that produces phenomenal amounts of power.

At the time, no one understood how it worked, and it was so inefficient that it was little more than a “laboratory curiosity,” Strano says.

Now, Strano has figured out the underlying physics, which has helped his team improve efficiencies dramatically—by 10,000 times—and charted a path for continued rapid improvements. One day, generators that use the phenomenon could make portable electronics last longer, and make electric cars as convenient as conventional ones, both extending their range and allowing fast refueling in minutes.

The efficiencies of the lab devices made so far are still low compared to conventional generators. Strano’s latest device is a little over 0.1 percent efficiency, whereas conventional generators are 25 to 60 percent efficient.

But Strano says they could be useful in some niche applications, where a sudden burst of power is needed. And Strano says that the further improvements in efficiency mean broader applications could soon be feasible.

The new generators exploit a phenomenon that Strano calls a thermopower wave. The conventional way to generate electricity by burning a fuel is to use heat to cause expanding gases to drive a turbine or a piston. In Strano’s system, as the fuel burns along the length of his nanotubes, the wave of combustion drives electrons ahead of it, creating an electrical current. It’s a much more direct and efficient way to generate electricity, since no turbines or conventional generators is required.

Read more: <http://www.technologyreview.com/news/530346/progress-on-a-powerful-new-way-to-generate-electricity/>

## **“WRI: Shale oil, gas face tight competition for water”**

By Nick Snow, *Oil & Gas Journal*, September 3, 2014

Governments and businesses trying to develop tight oil and gas resources could face intense competition for water that would be used in hydraulic fracturing, the World Resources Institute said in a recent report. It found that 38% of the world’s tight shale resources face high to extremely high water stress or arid conditions.

The Sept. 2 report, “Global Shale Gas Development: Water Availability,” is the first publicly available water availability analysis across shale gas and tight oil resources worldwide, the environmental organization said. Its research also indicated that water availability could limit shale resource development on every continent except Antarctica.

“With 386 million people living on land above shale plays, governments and business face critical choices about how to manage their energy and water needs,” said WRI Pres. Andrew Steer. “Energy development and responsible water management must go hand in hand.”

The report ranked water stress across the 20 countries with the largest shale resources. It also evaluated water availability for every shale play in the 11 countries either pursuing or most likely to use fracing: Algeria, Argentina, Australia, Canada, China, Mexico, Poland, Saudi Arabia, South Africa, the UK, and the US.

Water availability and shale resources vary from country to country, making fracing’s potential unique in almost every location, the report noted. It also said the potential for expansion is huge: Known shale gas deposits worldwide add 47% to global technically recoverable gas resources, and underground stores of tight oil add 11% to the world’s technically recoverable oil resources.

Read more: <http://www.ogj.com/articles/2014/09/wri-shale-oil-gas-face-tight-competition-for-water.html>

## **“POET opens first commercial-scale cellulosic ethanol plant in the U.S.”**

By Agri-Pulse staff, *Agri Pulse*, September 3, 2014

EMMETSBURG, Iowa, Sept. 3, 2014 - POET-DSM Advanced Biofuels, a joint venture of Royal DSM and POET, LLC, today opened its Project LIBERTY plant, which is the first commercial cellulosic ethanol plant in the country and is expected to produce up to 25 million gallons of cellulosic bio-ethanol annually.

The grand opening took place in Emmetsburg, Iowa, where U.S. Secretary of Agriculture Tom Vilsack; Department of Energy Deputy Under Secretary Michael Knotek; Iowa Governor Terry Branstad; and King Willem-Alexander of the Netherlands attended.

Project LIBERTY converts baled corn cobs, leaves, husk and stalk into renewable fuel. At full capacity, it will convert 770 tons of biomass per day to produce ethanol at a rate of 20 million gallons per year, later ramping up to 25 million gallons per year, POET announced.

“Some have called cellulosic ethanol a ‘fantasy fuel,’ but today it becomes a reality,” said Jeff Broin, POET founder and executive chairman. “With access now to new sources for energy, Project LIBERTY can be the first step in transforming our economy, our environment and our national security.”

POET said Project LIBERTY will spend approximately \$20 million annually purchasing biomass from area farmers, providing additional income to the farmers. The facility will consume 285,000 tons of biomass annually from a 45-mile radius of the plant.

Fuel from the new facility represents a GHG reduction of 85-95 percent over gasoline.

Read more: <http://www.agri-pulse.com/POET-opens-first-commercial-scale-cellulosic-ethanol-plant-US-932014.asp>

## **“Sasol Clears Major Hurdle to Build America's First GTL Plant”**

By Chris Pedersen, *OilPrice.com*, September 4, 2014

Last week, South African-based Sasol Ltd. cleared a major regulatory hurdle to build the United States' first Gas-to-liquids (GTL) plant near Lake Charles, Louisiana. The U.S. Army Corps of Engineers approved Sasol's wetland modification permit to build the industrial complex that would use natural gas as a feedstock to produce 96,000 barrels of diesel fuel and other liquids per day. If built, estimated construction costs are between \$11-14 billion and the complex will be the largest foreign investment in the history of the state of Louisiana.

The logic behind Sasol's big capital spend is relatively simple: Sasol is making a bold bet that natural gas in the U.S. will remain relatively cheap compared to oil on a BTU basis. Since 2009, the price ratio of crude oil to natural gas has spread significantly, with oil gradually rising, while natural gas has remained relatively flat.

The rocky history of large scale GTL projects has led developers and investors to become increasingly skeptical and cautious of large undertakings. With the help of Shell's Middle Distillate Synthesis (SMDS) process, which carries over 3,500 patents, both Qatar and Malaysia are among the few with success in building viable plants. Qatar's Pearl project began in 2012 and produces 140,000 b/d, while Malaysia's Bintulu plant, which began in 1993, produces 14,700 b/d. South Africa's national oil company, PetrolSA, holds the distinction of operating the world's first GTL plant, which began in 1992 and produces 22,000 b/d.

Read more: <http://oilprice.com/Energy/Natural-Gas/Sasol-Clears-Major-Hurdle-to-Build-Americas-First-GTL-Plant.html>

## **“SPX Gets \$50 Mln Order For ClearSky Cooling Towers For Coal Facility In China.”**

By RTT News, *NASDAQ*, September 5, 2014

(RTTNews.com) - SPX Corp. ( SPW ), a manufacturer of specialized, engineered solutions, announced that it was awarded an order valued at approximately \$50 million to provide ClearSky Plume Abatement Cooling Systems for a coal liquefaction process facility in China to be built by Shenhua Ningxia Coal Industry Group.

SPX said it has agreed to provide SPX Marley ClearSky Plume Abatement Systems, with the latest cooling technology of recycling of condensed steam.

Shenhua's indirect coal liquefaction process facility will be built in the Lingwu Ning Dong coal chemical industry. This facility is expected to process approximately four million tons of indirect coal liquefaction per year.

In China, SPX cooling towers are in use at many power plants, as well as major sports and cultural venues including the Beijing Olympic stadium, the Shanghai Expo, and the subway lines in Shanghai, Beijing and Guangzhou.

Read more: <http://www.nasdaq.com/article/spx-gets-50-mln-order-for-clearsky-cooling-towers-for-coal-facility-in-china-20140905-00192#ixzz3EG5p0Kof>

### **“Catacel Corp. purchased by London-based Johnson Matthey plc”**

By Scott Suttell, *Crain's Cleveland Business*, Originally Published: September 04, 2014  
Modified: September 09, 2014

Catacel Corp. of Ravenna, a maker of catalytic reformer and heat exchanging technology, has been bought by a large specialty chemicals company from London.

Terms of the acquisition by Johnson Matthey plc were not disclosed.

Catacel's business will be integrated into Johnson Matthey's Process Technologies Division “and will have access to the wider resources of the Johnson Matthey group, including its global network of research and technology centers with their world-leading development and characterization facilities,” according to a news release announcing the sale.

Becoming part of Johnson Matthey “will provide Catacel with the financial stability and scale of operations required to achieve its potential within its target markets,” the release stated.

Johnson Matthey has operations in more than 30 countries and employs about 12,000 people.

Catacel has about 30 employees. Its products include high-heat-transfer catalyst technology for hydrogen and syngas production and fuel processing systems for stationary fuel cells.

Read more: <http://www.crainscleveland.com/article/20140904/FREE/140909904/catacel-corp-purchased-by-london-based-johnson-matthey-plc>

## **“EIA: Nat Gas, Biofuel to be More of World Fuel by 2040”**

By John Davis, *Domestic Fuel*, September 11, 2014

Natural gas and biofuels will make up the biggest share of the increase in what are known as “other liquid resources” in the world liquid fuel supply. The U.S. Energy Information Administration’s (EIA) International Energy Outlook for 2014 (IEO2014) says those fuels that include natural gas plant liquids (NGPL), biofuels, coal-to-liquids (CTL), gas-to-liquids (GTL), kerogen (oil shale), and refinery gain, made up just 14 percent of the world’s liquid fuels in 2010. But that number is expected to rise to 17 percent by 2040, driven by higher petroleum prices.

Brazil is expected to put in 500,000 additional barrels of biofuels per day, with another 300,000 additional barrels of biofuels coming from China.

Read more: <http://domesticfuel.com/2014/09/11/eia-nat-gas-biofuel-to-be-more-of-world-fuel-by-2040/>

## **“Long Legs for the Energy Boom”**

By Russell Gold, *MSN / The Wall Street Journal*, September 15, 2014

Skeptics of the U.S. energy boom say it can't last much longer because it requires drilling an ever-increasing number of wells.

But the boom already has lasted longer than anyone would have imagined just a decade ago and has more room to run. That's because oil and natural-gas wells have become more productive—an unrecognized but potent trend that should keep the fuels flowing.

Back in 2003, the energy industry had just begun combining the techniques of drilling horizontal bores through shale and then using hydraulic fracturing—shooting tons of water, chemicals and sand into the rocks.

Four Sevens Oil Co. drilled the best gas well that year, in the Barnett Shale, just north of Fort Worth, Texas, according to Drillinginfo, an industry data service that searched its records at the request of The Wall Street Journal.

Four Sevens used what was then considered a whopping 2.8 million gallons of liquid and 221,000 pounds of sand in fracking the well, named the Braumbaugh after the family that owned the mineral rights.

At its peak, 5.9 million cubic feet of gas a day rushed up the well. "We were real happy with it," says Four Sevens co-founder Dick Lowe. When the state published the production data, competitors were envious.

Today, the Braumbaugh looks like a pipsqueak.

Cabot Oil & Gas Corp. drilled the best gas well in the U.S. last year, in Susquehanna County, Pa., about 110 miles northwest of Manhattan. Drilling longer horizontal legs and fracking the well repeatedly, Cabot pumped in 12.5 million gallons of liquid, more than four times the amount Four Sevens had employed, and used 13.3 million pounds of sand.

The well produced 30.3 million cubic feet a day—five times as much as the Four Sevens record setter a decade earlier.

Read more: <http://preview.msn.com/en-us/money/business/long-legs-for-the-energy-boom/ar-BB3Nq7b>

### **“Manchin Alarmed by New Report on Rising Coal Plant Retirements”**

U.S. Senator Joe Manchin (D-W.Va.) (Press Release), *manchin.senate.gov*, September 15, 2014

#### **GAO reports that 13 percent of the nation’s coal-fired plants will close in response to EPA’s proposed rule**

Washington, D.C. –Today, U.S. Senator Joe Manchin (D-W.Va.) expressed concern after the Government Accountability Office (GAO) released an updated report on the projected number of retiring coal-fired plants in response to the Environmental Protection Agency (EPA) standards for carbon dioxide emissions. According to the report, approximately 13 percent of coal-fueled generating capacity has either been retired since 2012 or is planned for retirement by 2025, which surpasses the previous estimates in 2012. The report found that West Virginia, Ohio, Pennsylvania and Kentucky represented 38 percent of planned closures.

“The number of coal-fired plants that are being forced to shut down is alarming, and I truly believe we are setting ourselves up for a major electric stability crisis in this country,” Senator Manchin said. “The GAO report verifies the dangerous impact the EPA’s proposed rules are having on our electrical grid and our economy, and it should be an eye-opener not just for West Virginians, but for hard working individuals and families across America who depend on coal for reliable and affordable energy, especially during the harsh winters when the grid is pushed to capacity. This report should also clearly demonstrate that it is time for the Department of Energy to accelerate available grants and loan guarantees for advanced fossil fuel projects. I will do everything in my power to continue pushing all relevant federal agencies to live up to their responsibilities to ensure the reliability of our national electricity system.

Read more: <http://www.manchin.senate.gov/public/index.cfm/2014/9/manchin-alarmed-by-new-report-on-rising-coal-plant-retirements>

## **“Unconventional Oil, Gas to Lift US Energy Exports”**

By Karen Boman, *Rigzone*, September 16, 2014

The rapid rise in U.S. unconventional oil and natural gas production will help boost U.S. energy exports by around 5 percent per year through 2030, according to the September 2014 U.S. HSBC Global Connections Trade Forecast.

Imports of petroleum are expected to decline from 12 percent in the near-term to 7 percent in the long-term, according to HSBC report, which highlights the global trade outlook for the United States by sectors such as energy and healthcare.

Emerging markets that don't have refining capabilities or don't dispose of energy reserves could represent a major opportunity for U.S. energy exporters, said Derrick Ragland, executive vice president and head of U.S. Middle Market Corporate Banking, HSBC Bank USA N.A., in a Sept. 16 press release.

Chemical plant expansions and liquefied natural gas (LNG) terminal upgrades, coupled with the opening of Mexico's energy industry to foreign investment, are expected to result in a new export boom for Houston and to create over 55,000 new jobs, according to a May 2014 report by HSBC. The massive investment in chemical plants and LNG export terminals has fed a second boom as Houston's engineering, construction and fabrication firms design and construct these plants.

Read more:

[http://www.rigzone.com/news/oil\\_gas/a/135036/Unconventional Oil Gas to Lift US Energy Exports](http://www.rigzone.com/news/oil_gas/a/135036/Unconventional_Oil_Gas_to_Lift_US_Energy_Exports)

## **“Enbridge plans to bring more tar sands oil into Great Lakes region”**

By Rebecca Williams, *Michigan Radio*, September 16, 2014

There's been a lot of controversy over TransCanada's Keystone XL pipeline. But there's another company working to bring more tar sands oil into the U.S.

Enbridge Energy wants to increase the amount of heavy crude oil crossing the border from the Alberta tar sands into the Great Lakes region.

Lorraine Little is with Enbridge. She says Enbridge wants to move more oil on its pipeline known as the Alberta Clipper. That pipeline runs about a thousand miles from northern Alberta to Superior, Wisconsin.

“Its purpose is to carry heavy crude oil from the oil sands in Alberta into our Superior terminal where then it can get off on other pipelines and serve refining markets around the Midwest region or other parts of the country,” she says.

Back in November of 2012, Enbridge filed an application with the U.S. State Department. The company wants to raise the capacity of the border segment of the Alberta Clipper pipeline to 800,000 barrels per day (they're currently transporting 450,000 barrels per day).

That permit is still under review.

### **Shifting oil between pipelines**

But in the meantime, before the permit is issued, Enbridge has found another way to get that oil into the U.S.

Read more: <http://michiganradio.org/post/enbridge-plans-bring-more-tar-sands-oil-great-lakes-region>

### **“Chemical, Other Firms Put A Price On Carbon”**

By Melody M. Bomgardner, *Chemical & Engineering News*, September 18, 2014

In advance of this week's United Nations climate summit in New York City, the not-for-profit Carbon Disclosure Project has released a report listing global corporations that put a price on the carbon they emit. CDP found that 150 major companies, including 29 based in the U.S., state that they assign an internal price to carbon. At many firms, this so-called shadow price is used to calculate the costs and returns for future capital investments, such as new factories or energy efficiency projects. The CDP list includes the chemical companies Mitsubishi Chemical Holdings, AkzoNobel, BASF, Dow Chemical, DuPont, and Braskem. Few corporations give the figure they use, but the disclosed prices vary from \$8.00 to nearly \$90 per metric ton of CO<sub>2</sub>. According to a May report by the World Bank, 39 national and 23 subnational jurisdictions, led by the European Union and China, have already implemented or are scheduled to implement carbon-pricing schemes, including emissions-trading systems and taxes. “From putting a price on carbon to participating in global carbon-pricing markets, companies are expecting, and preparing, for regulation,” CDP's report says.

Read more: <http://cen.acs.org/articles/92/web/2014/09/Chemical-Firms-Put-Price-Carbon.html>

### **“\$70 Million Construction Grant Awarded to Velocys Supported Biomass-to-Liquids Project”**

By PR Newswire, Velocys (press release), *SYS-CON Media (press release)*, September 19, 2014

HOUSTON, Sept. 19, 2014 /PRNewswire/ -- Velocys, the technology innovator for smaller scale gas-to-liquids (GTL), is pleased to announce that its customer, Red Rock Biofuels, has been awarded a \$70 million grant to construct a biomass-to-liquids (BTL) plant in Oregon incorporating Velocys Fischer-Tropsch (FT) technology.

"We are very pleased to see the Red Rock project moving ahead," said Roy Lipski, CEO of Velocys. This \$70 million government grant is set to make the Oregon project happen and will act as a catalyst for early adoption of BTL in North America. We are proud to be at the leading edge of this important market."

Red Rock Biofuels, a Fort Collins, Colorado based subsidiary of IR1 Group LLC ("IR1"), has extensive experience constructing and operating commercial-scale biofuels facilities. This new BTL plant in Oregon will convert some 170,000 tons per year of forestry and sawmill waste into approximately 1,100 barrels per day of ultra clean transportation fuels.

The \$70 million grant is being awarded under phase 2 of the US Defense Production Act Title III Advanced Drop-in Biofuels project. In July 2013, Red Rock Biofuels was awarded \$4.1 million under phase 1 of the same program to conduct detailed engineering for the BTL facility, which is now complete.

Read more: <http://www.sys-con.com/node/3191890>

Related article: \*

**\* \$70 million construction grant for BTL plant**

By Stuart Radnedge, *Gasworld.com*, September 22, 2014

Read more: <http://www.gasworld.com/regions/north-america/70-million-construction-grant-for-btl-plant/2004341.article>

**“Velocys Wins Intellectual Property Lawsuit Against Rival”**

Velocys (press release), *PR Newswire (press release)*, September 22, 2014

HOUSTON, Sept. 22, 2014 /PRNewswire/ -- Velocys plc (VLS.L), the company behind smaller scale gas-to-liquids (GTL), announces that the UK High Court has ruled in its favor in the patent infringement case it brought against CompactGTL Ltd.

"Velocys is pleased by today's judgment in its favor against CompactGTL. We have demonstrated our resolve to protect our shareholders' interests and defend our intellectual property, which includes many valuable patents relevant to smaller scale gas-to-liquids production and its associated supply chain," said Roy Lipski, CEO of Velocys. "This ruling provides important guidance to the industry, just when the market for smaller scale GTL begins taking off."

The case, filed by Velocys in March 2013, involves infringement by CompactGTL's smaller scale Fischer-Tropsch (FT) technology. FT is regarded as the core process in any gas-to-liquids plant.

The judgment upheld the validity of the two patents in suit (known as '508 and '509), and found CompactGTL to be infringing both patents – six separate patent claims in total – based on

CompactGTL's sworn statements to the court concerning their technology and its intended use. A copy of the judgment can be obtained from the Courts Recording and Transcription Unit of the Royal Courts of Justice.

Velocys has a very substantial patent portfolio comprising more than 900 patents, covering a broad range of countries, which protects key inventions relevant to smaller scale GTL. The Company also holds a significant inventory of trade-secrets which it has gained through years of development and practice. Moreover, Velocys actively ensures it maintains strict freedom to operate for its own business.

Patents similar to the two in this case have also been approved in numerous other jurisdictions around the world, including places where smaller scale GTL might be deployed, such as the United States and Canada, and countries where FT reactors and other associated equipment might be manufactured, such as Japan and South Korea.

Read more: <http://www.prnewswire.com/news-releases/velocys-wins-intellectual-property-lawsuit-against-rival-276004531.html>

Related article: \*

**\* “High Court win for Velocys”**

By Stuart Radnedge, *Gasworld.com*, September 24, 2014

Read more: <http://www.gasworld.com/regions/west-europe/high-court-win-for-velocys/2004356.article>

**“Tar sands oil Albany-bound?”**

By Brian Nearing, *Albany Times Union*, September 22, 2014

*(Albany)* A Houston-based oil company with a terminal at the Port of Albany is poised to open its rebuilt rail terminal in New Jersey — connected to Albany via rail — to shipments of Canadian tar sands oil.

This spring, the head of Buckeye Partners told investors that its rebuilt Perth Amboy terminal would be ready for incoming rail shipments of tar sands oil by the third quarter of this year. That schedule was confirmed during a company presentation at an industry conference in August.

To get to New Jersey, trains carrying the oil from the Canadian province of Alberta would have to use rail lines that pass through New York and either go past the Port of Albany or to CSX's Selkirk rail yard to the south and then continue down CSX lines along the western shore of the Hudson River to New Jersey.

It remains unclear which path potential tar sand shipments could take. Buckeye officials did not return several calls seeking comment. The company has run its terminal at the port since 2012.

The 1,250-acre Selkirk yard in Albany County is a major CSX switching center at which freight cars are sorted into various tracks for dispatching in trains headed to destinations throughout the Northeast. The yard is the largest of 11 owned nationally by CSX.

Read more: <http://www.timesunion.com/business/article/Tar-sands-oil-Albany-bound-5773604.php>

## **“Gas To Liquids Project Could Cut Oil Production Costs”**

By Ellen Lockyer, KSKA - Anchorage, *AK Public Media Network*, September 23, 2014

An Alaska company wants to help reduce the cost of producing oil on the North Slope. Alaska Natural Gas to Liquids, based in Anchorage, is pitching a plan to construct a gas-to-liquids facility that could save the producers between \$50 million and \$100 million a year.

Richard Peterson, raspy voiced president and CEO of Alaska Natural Gas to Liquids, (ANGTL) is a mechanical engineer who has been in the energy field for the past forty years. Peterson spoke at a recent Mat Su Business Alliance luncheon to pitch a 650 million dollar project, that, he says, will save costs to oil and gas producers.

“Those producers must import about a hundred thousand gallons a day of diesel. Where do you make ultra-low sulfur diesel in Alaska? Tesoro Nikiski. So the diesel that is required to be used on the North Slope, comes out of Tesoro, Nikiski, has to be transported all the way to the North Slope. Nine hundred miles of transport. This adds an enormous amount of cost.”

ANGTL would like to bring that cost down, by providing the technology for producing clean burning diesel on site at the North Slope. According to Peterson, the process that enables natural gas to be converted to a liquid fuel has been around since World War 2. His proposed facility would convert natural gas into a low sulfur, clean burning diesel fuel.

”We’d like to bring the first commercial plant in the United States to Alaska,” he said.

Peterson showed photos of gas to liquids reactors, at least one now in use by Shell in Qatar, which produces 140 thousand barrels of diesel a day. But other types of reactors produce diesel on a smaller scale. He said that the mega- facilities “don’t translate to Alaska right now,” but the smallest unit, could be adapted to Alaska’s needs, if built correctly.

Read more: <http://www.alaskapublic.org/2014/09/23/gas-to-liquids-project-could-cut-oil-production-costs/>

## **“Maverick, methane: attacking the big wave”**

By Jim Lane, *Biobased Digest*, September 23, 2014

### **Maverick Synfuels Introduces Maverick Oasis — attacking the big methane wave via affordable, modular, smaller-scale gas-to-liquid methanol plants**

If you’ve been raised on video of traditional surfing, with its hot dog cutbacks, aerials, dramatic reentries, and tube mechanics — think again when it comes to the big wave. The art of surfing the big bombs at Waimea Bay, Dungeons or Mavericks is all about simple lines, moving fast, staying up, and survival.

In new fuels, the Big Wave equivalent of Mavericks, these days, is methane, with such replete supplies being produced up in the Bakken that low-value gas are being flared at so many wells that, at dusk, the western horizon vibrates with the light of a hundred dancing “Dakota fireflies”. Or, consider anaerobic digesters on agricultural land. Or landfill gas.

But, where’s the value? Gas is being flared, digesters are left unbuilt — not because of the lack of opportunity but because burning gas for power is a low-value application, and the gas needs aggregation to pipeline economically.

Enter Maverick Synfuels. On one level, we wish they were named Mavericks Synfuels — because over the years they have consistently simplified their technologies, picked up some speed, and now are attacking the big methane wave.

#### **The technology vision**

Their vision is as replete with hot keywords as anything in the field today. Affordable. Small-scale. Methane. GTL. Modular. Financeable.

The Maverick vision? Produce methanol from methane at small “spoke” production facilities located at or near the feedstock supply — and transport the higher value liquid either directly to customers, or to a larger central “hub” facility to be converted into final products.

Read more: <http://www.biofuelsdigest.com/bdigest/2014/09/23/maverick-methane-attacking-the-big-wave/>

Related article: \*

#### **\* “Maverick Synfuels Introduces Maverick Oasis™ Methane Gas-to-Liquid Modular Methanol Plants”**

Maverick Synfuels (press release), *EIN News (press release)*, September 23, 2014

Read more: [http://world.einnews.com/pr\\_news/225411892/maverick-synfuels-introduces-maverick-oasis-methane-gas-to-liquid-modular-methanol-plants](http://world.einnews.com/pr_news/225411892/maverick-synfuels-introduces-maverick-oasis-methane-gas-to-liquid-modular-methanol-plants)